

## CLAIMS

What is claimed is:

1. A method of screening a compound for its ability to interact with A20 interacting proteins, said method comprising:  
combining a sample, comprising a compound, to be screened with a protein of an NF- $\kappa$ B related pathway in an assay;  
conducting the assay under conditions which permit an interaction of said protein of the NF- $\kappa$ B related pathway with the compound of said sample to be screened;  
detecting an interaction between said protein of the NF- $\kappa$ B related pathway and the compound; and  
identifying the compound in said sample that interacts with said protein of the NF- $\kappa$ B related pathway in said assay.
2. The method according to claim 1, wherein said protein of the NF- $\kappa$ B related pathway comprises an A20 protein.
3. The method according to claim 1, wherein said protein of the NF- $\kappa$ B related pathway has a sequence selected from the group consisting of SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:19, SEQ ID NO:2 and SEQ ID NO:5.
4. The method according to claim 3, further comprising combining said sample to be screened and an A20 polypeptide with said protein of the NF- $\kappa$ B related pathway in an assay.
5. The method according to claim 4, further comprising assaying said sample to be screened for suppression of an interaction between said protein of the NF- $\kappa$ B related pathway and said A20 polypeptide.

6. The method according to claim 4, further comprising assaying said sample to be screened for activation of an interaction between said protein of the NF- $\kappa$ B related pathway and said A20 polypeptide.
7. The method according to claim 3, wherein preparing said assay comprises preparing an assay selected from the group consisting of a two-hybrid assay and a co-immunoprecipitation assay.
8. The method according to claim 3, further comprising assaying said compound for activation or suppression of ABIN dependent NF- $\kappa$ B inhibition.
9. The method according to claim 8, further comprising assaying said compound for activation or suppression of ABIN dependent NF- $\kappa$ B inhibition of TNF or IL-1 induced activation of NF- $\kappa$ B inhibition.
10. A method of screening a compound for its ability to interact with A20 interacting proteins, said method comprising:
  - preparing a read out system capable of detecting an interaction between a protein of the NF- $\kappa$ B related pathway and a compound in a sample to be screened;
  - combining said sample to be screened with said protein of the NF- $\kappa$ B related pathway and said read out system in a reaction mixture;
  - maintaining said reaction mixture under conditions that permit interaction of said protein of the NF- $\kappa$ B related pathway with said read out system; and
  - identifying a compound in said sample which interacts with said protein of the NF- $\kappa$ B related pathway in said read out system.
11. The method according to claim 10, wherein said protein of the NF- $\kappa$ B pathway comprises A20.

12. The method according to claim 10, wherein preparing said read out system comprises preparing a two-hybrid assay.
13. The method according to claim 10, wherein said protein of the NF- $\kappa$ B pathway comprises a sequence selected from the group consisting of SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:19, SEQ ID NO:2 and SEQ ID NO:5.
14. The method according to claim 13, further comprising identifying said compound in said sample that suppresses an interaction between said protein of the NF- $\kappa$ B pathway and A20.
15. The method according to claim 13, further comprising identifying said compound in said sample that activates an interaction between said protein of the NF- $\kappa$ B pathway and A20.
16. The method according to claim 13, further comprising assaying the compound for activation or suppression of NF- $\kappa$ B inhibition.
17. The method according to claim 13, further comprising assaying the compound for activation or suppression of TNF or IL-1 induced activation of NF- $\kappa$ B.